

AMENDMENTS TO THE CLAIMS

Claims 1-7 (Canceled)

8. (Currently amended) A transgenic mouse comprising a disruption in a magnesium-dependent protein phosphatase gene represented by SEQ ID NO: 1, wherein where the disruption is homozygous the transgenic mouse lacks production of functional protein encoded by the ~~a~~ magnesium-dependent protein phosphatase gene and the transgenic mouse exhibits, relative to a wild-type mouse, a phenotypic abnormality selected from the group consisting of a lung abnormality, elevated white blood cell count, increased anxiety and increased pain threshold.

9. (Previously amended) A cell isolated from the transgenic mouse of claim 8.

10. (Currently amended) A method of producing a transgenic mouse comprising a homozygous disruption in a magnesium-dependent protein phosphatase gene represented by SEQ ID NO: 1, the method comprising:

- (a) introducing ~~the~~ a targeting construct capable of disrupting the magnesium-dependent protein phosphatase gene represented by SEQ ID NO:1 of claim 1 into a mouse embryonic stem cell;
- (b) selecting for a mouse embryonic stem cell comprising a disruption in the magnesium-dependent protein phosphatase gene;
- (c) introducing the embryonic stem cell selected for in step (b) into a blastocyst;
- (~~ed~~) implanting the resulting blastocyst into a pseudopregnant mouse, wherein said pseudopregnant mouse gives birth to a chimeric mouse; ~~and~~
- (~~de~~) breeding the chimeric mouse to produce ~~the~~ a transgenic mouse comprising a heterozygous disruption in the magnesium-dependent protein phosphatase gene; and
- (f) breeding the heterozygous transgenic mouse of step (e) to produce a transgenic mouse comprising a homozygous disruption in the magnesium-dependent phosphatase gene represented by SEQ ID NO:1, wherein the transgenic mouse when homozygous for the disruption lacks production of functional protein encoded by the magnesium-dependent protein phosphatase gene and the transgenic mouse exhibits, relative to a wild-type mouse, a phenotypic abnormality

selected from the group consisting of a lung abnormality, elevated white blood cell count, increased anxiety and increased pain threshold.

Claims 11-17 (Canceled)

18. (Previously amended) The transgenic mouse of claim 8, wherein the lung abnormality comprises pulmonary lesions.

19. (Currently amended) The transgenic mouse of claim 18, wherein the pulmonary lesions are consistent a with symptom associated with pneumonia.

Claims 20-44 (Canceled)

45. (Previously amended) The transgenic mouse of claim 8, wherein the increased anxiety is characterized by a decreased amount of time spent in a central region during an open field test.

Claim 46 (Canceled)

47. (Previously amended) The transgenic mouse of claim 8, wherein the increased pain threshold is characterized by an increased response latency during a hot plate test.

Claims 48-72 (Canceled)